



Table of Contents for Tab 3

Tab 3. Project Financing

3. Summary	3-1
3.a Cost Breakdown by Phases	3-4
3.b Development, Financing and Operation Plan.....	3-8
3.c Proposed Assumptions	3-17
3.d Proposed Risks	3-32
3.e Local, State and Federal Resources	3-35
List of Exhibits to Tab 3.....	3-37
Financial Letters of STAR Solutions' Privately-held Companies	N/A

Tab 3 Project Financing

3. Project Financing

Summary

STAR Solutions estimates that the capital cost, in 2002 dollars, of the "Base Proposal" improvements to I-81 during 2004-2018 is \$7.54 billion. Based on an assumed 3.0% annual cost inflation from 2002 to the estimated year of disbursement of these costs, the inflated estimated project costs total \$9.91 billion. These costs are disbursed over the 15-year period to accomplish construction of the dedicated truck lanes and other I-81 improvements in four phases. The four phases are estimated to be completed at the end of 2008, 2010, 2014 and 2018. In addition, one of the sponsors of STAR Solutions, Koch Performance Roads Inc., is proposing to provide a warranty on all pavement in each completed phase for 20 years after the phase's completion date. This warranty would be paid for during the 15-year project implementation period and is included in our plan of finance and cash flow analysis. The proposed cost of the pavement warranty and related services is \$649.12 million (in 2002 dollars) and \$883.50 million in the year of disbursement from 2004 through 2018.

As previously outlined in Tab 2, the scope of this project, known as the "Base Proposal" has changed since the original STAR Solutions' proposal submitted to VDOT on January 16, 2002, to be responsive to the September 19, 2002 RFP from VDOT, to further improve safety, and to address issues raised by stakeholder groups. These changes, while important, have impacted the cost of the project and require an amended financing plan.

STAR Solutions' financing plan for the I-81 Project is based on three principal funding sources:

- Toll revenues to support debt funding obligations
- Federal funds earmarked for truck and car separation on interstate highways
- VDOT funds earmarked for I-81 improvements in the current Six-Year Transportation Development Plan

First, we are proposing that toll revenue debt be secured by toll revenues collected from all commercial vehicles with four or more axles ("Heavy Commercial Vehicles" or "Heavy CV"), net of costs of operating and maintaining the toll collection system. This is the only toll revenue option for I-81 currently available under the Virginia PPTA statute. This toll revenue debt takes two forms: (a) senior toll revenue bonds that are sold to public investors through the tax-exempt municipal bond market and (b) a subordinate loan from the federal credit assistance program established in the Transportation Infrastructure Finance and Innovation Act of 1998 ("TIFIA"). These financing resources are assumed to be available for each phase at the beginning of substantial construction of each respective phase in 2005, 2009, 2011 and 2015. In fact, our team has provided to the Federal Highway Administration a letter of support for the continuation of the TIFIA program in the upcoming transportation reauthorization bill, and the maintenance of this program is one of our federal legislative priorities. The revenue debt estimated to be available at the beginning of each phase is based on the net revenues estimated to be available from the completion of the phase then being financed and other phases that have already been completed.

3. Project Financing

Summary

The amount of toll revenue is based on STAR Solutions' forecast of toll revenue, net of toll collection costs, and assumed revenue bond and TIFIA loan terms. Toll revenues during construction of each phase are projected based on a 10-cent per mile rate (in 2000 dollars) on Heavy CV's, which after assumed 3.0% annual inflation, is a 12-cent per mile rate when the Interim Toll Rate is instituted in 2006. The Interim Toll is levied beginning shortly after the execution of a Comprehensive Agreement between STAR Solutions and VDOT and in compliance with restrictions imposed by federal law, and it would provide funds needed for costs to be incurred throughout the I-81 corridor, including environmental work, right-of-way acquisition, and additional safety improvements such as truck climbing lanes and longer interchange acceleration ramps. The toll rate is assumed to increase to 21-cents per mile (in 2000 dollars) when each phase of construction is completed. Again assuming 3.0% annual inflation, this equals a 27.4 cent per mile Improved Toll Rate in 2009 on Heavy Commercial Vehicles that travel the section of I-81 that is completed in Phase 1. However, the Interim Toll would remain in place on each of the other segments until the improvements in each phase are completed.

Given the substantial existing traffic on I-81, the lack of viable alternate routes that would allow diversions of trucks to other routes and the preliminary estimates of net toll revenues that have been prepared to date, this type of financing appears to be feasible as a method for funding a significant portion of the project's capital costs. This conclusion is subject to confirmation in an investment-grade traffic and toll revenue study, which will be prepared closer to the issuance of the Bonds and in cooperation with VDOT.

During meetings with a number of stakeholder groups, the STAR Solutions team has learned about interest in exploring various tolling schemes to provide relief to targeted user groups. Some of these include reduced tolls for empty trucks, agricultural exemptions, commuter rates for Heavy CV users that travel I-81 several times a week, or reduced tolls for local traffic. In addition, there has been some public discussion of Virginia corporate income tax credits for in-state trucking firms. The STAR Solutions team does not oppose these efforts and is willing to work with VDOT and the Virginia General Assembly to structure their implementation in a way that does not violate any constitutional provisions or undermine the financing plan. Our financing plan, however, has not made any assumptions regarding the costs of these alternate tolling schemes. Should our proposal be selected to move forward, we would be willing to work with VDOT on a cost-benefit analysis of these alternative tolling schemes as well as one for the entire I-81 improvements project.

Second, we have built into our financing plan two sets of federal earmarked funds that we are working to secure in the next two federal transportation authorization programs for this innovative and safety minded project of national significance. Over the coming months, we will have a better idea as to the magnitude of what federal support can be expected for this project. The first \$800 million of earmarked funds is assumed to be available in the next reauthorization that covers federal fiscal years 2004 through 2009 and an additional \$800 million of earmarked funds is assumed to be available in federal fiscal years 2010 through 2015. These resources are assumed to be drawn down when needed to fund annual project costs.

3. Project Financing

Summary

Third, during the first five years of the Project, in 2004-2008, we have included unexpended design and construction funds that are currently in the Virginia Transportation Development Plan for I-81 improvement projects. These resources are assumed to be drawn down no earlier than is currently identified by VDOT.

Based on the estimated project costs, projected toll revenues and toll system operating and maintenance costs, our preliminary finance plan for the Base Proposal results in approximately a \$1.87 billion cumulative funding shortfall over the 15-year project implementation period. We propose to partner with VDOT to develop an optimal financing plan that funds all project costs, which could be composed of one or more of the following additional resources:

- Additional VDOT capital contributions in the form of a commitment to contribute towards the I-81 improvements project funds that are anticipated to be in future Virginia Transportation Development Plans for I-81 related improvements. Absent a PPTA proposal to improve I-81, VDOT would have to continue to set aside funds for design and construction of needed improvements in the corridor, so it is reasonable to assume that such monies should be available to a PPTA operator that is assuming responsibility for these duties. These funds could conceivably be repaid from the proceeds of the Toll Revenue Bonds and TIFIA Loan tranches that are delivered to fund subsequent phases of the project. If sufficient financing capacity were not subsequently available, this "project advance" could potentially also be repaid from surplus toll revenues, after payment of debt service on the Toll Revenue Bonds and TIFIA Loan and funding of replacement costs of toll equipment.
- Additional federal funds, including higher than assumed earmarks for the separation of cars and trucks along the entire corridor, ITS program funding, homeland security appropriations for emergency preparedness/evacuation readiness, or other federal sources.
- Additional project revenue debt that would be issued if toll rates on heavy commercial vehicles were optimized to generate the maximum potential revenue.
- Locally-generated revenues through tax-overlay districts, local recordation tax revenue, or other sources of funds provided by local governments in the corridor. Local participation in some of the public safety aspects of our ITS plan could also provide some funds to offset project costs.
- Slower construction of flyovers for heavy commercial vehicles at interchanges than is assumed in our Base Proposal.
- Fines or other penalties that may be levied as a result of changes to Virginia law for toll or enforcement violations in the I-81 corridor.
- Additional project revenue debt that would be issued if tolls were charged on all other vehicles, *i.e.*, cars and light commercial vehicles. Our recommendation would be that other vehicles would be tolled at six toll barriers located in non-urban areas through the I-81 corridor, thereby charging long-distance I-81 users for a portion of the improvements that have increased the safety and reliability of travel on I-81 without penalizing local and commuter traffic. For example, the first toll plaza would be at approximately milepost 60, thus facilitating car traffic in the Bristol-Marion area on a toll-free basis. Based on a preliminary analysis of non-Heavy CV traffic along I-81, the toll rate on such vehicles would be

3. Project Financing

Summary

substantially lower than that for Heavy Commercial Vehicles and would be comparable to current toll rates for Passenger Cars and Light Commercial Vehicles on existing long-distance eastern tollroads. Such additional toll revenue potentially could also be available to reduce the amount of the per mile Heavy CV toll. Current Virginia law would have to be changed to permit such an option. Tolling all vehicles would, however, incur additional toll operating and maintenance costs and minor revisions to our Base Proposal to facilitate the construction of the six toll plazas, which have an estimated additional capital cost of \$55 million. A minimum toll on Passenger Cars and Light Commercial Vehicles at each of the six toll plazas is projected to completely eliminate the funding gap projected in the Base Proposal.

Additional funds from these sources could not only fund the financing gaps in our proposal, but they would also be available to support some of the other transportation enhancements in the corridor that support the goal of increasing safety and reducing congestion in the I-81 corridor. It is also worth noting that should our funding proposal be accepted, it is conceivable that by removing I-81 from the state's list of projects on which it would have to spend significant resources over the next 20-40 years, these funds could be released for other projects statewide.

As is discussed in other Tabs of our proposal, STAR Solutions is confident that, over the course of development of the I-81 Project, we and VDOT, as partners, can jointly develop a financing plan that best meets all parties' objectives for the project, including truck users, other vehicle users, VDOT, the FHWA, Congressional leadership, Virginia and Congressional legislative delegations and other interested parties.

3.a Cost Breakdown by Phases

Provide a preliminary estimate and estimating methodology of the cost of the work by phase and/or segment (e.g. planning, design, construction).

STAR Solutions has prepared a preliminary cost estimate for the proposed improvement in four phases of I-81 under our Base Proposal for separated lanes for all vehicles with four or more axles ("Heavy Commercial Vehicles" or "Heavy CV") and a 100% Electronic Toll Collection ("ETC") system for these vehicles. This tolling plan is based upon restrictions imposed in the 2002 General Assembly on PPTA projects for the I-81 corridor. In addition, we have estimated the additional costs related to an Alternative Tolling Concept in which other vehicles ("Light Commercial Vehicles and Passenger Cars" or "Light CV and PC") would also be tolled as each phase of separated lanes for Heavy CV is completed.

STAR Solutions' team members developed estimated costs for each of 10 segments of I-81 using unit costs for each of the structures, roadway lane miles and other civil work included in each segment. The estimated costs of Design, Construction and Construction Engineering and Inspection ("CE&I") are based on industry norms. Right-of-Way/Utilities costs were estimated based on property taxes and values for the respective areas. The environmental estimate is based on the man-hour effort to meet all environmental requirements. This includes documents, supplements to documents, permits and compliance assurance. The cost for soundwalls was derived by reviewing the requirements for them and making a professional projection on the height required at

3.a Cost Breakdown by Phases

Provide a preliminary estimate and estimating methodology of the cost of the work by phase and/or segment (e.g. planning, design, construction).

those locations. A final cost was determined by using historical data. Traffic Engineering, Geotechnical Engineering and land survey estimates are based on a per mile cost for a comparable project. The cost of Rest Areas and Weigh-in-Motion is estimated from the most recent cost data inflated to 2002 dollars.

Estimated costs include a 20-year pavement warranty from Koch Performance Roads Inc. ("KPRI"). The warranty will establish responsibility for maintenance and rehabilitation of I-81 pavement to a specified level of pavement performance for 20 years under specified traffic levels, spending limitations and inflation exposure, all to be negotiated with VDOT. This pavement warranty represents another value-added feature of STAR Solutions' proposal that should reduce VDOT's Asset Management costs and be viewed positively by third-party lenders, including US-DOT. Further, such a warranty, which is carried as a liability by KPRI and limits the company's ability to invest capital in other projects, should be viewed as a significant contribution of equity to the project by the STAR Solutions team.

The estimated construction costs include a Project Management fee to provide program management for all aspects of the project from design through quality control. We believe that such a fee is warranted given the significant contributions being made by the principals of the STAR Solutions team in the development, implementation and completion of this project as well as the additional public safety and cost savings that can accrue to the users of I-81 through our comprehensive improvements package.

The cost estimates are allocated among four phases of the project based on the project schedule for each phase identified in Tab 2.

For purposes of preparing the preliminary financing plan for this Base Proposal, the cost estimates were spread over the conceptual 15-year timeframe for developing, designing and implementing the improvements for each phase (see discussion in Tab 3.b below). In addition, the preliminary financing plan reflects inflation to the expected year of expenditure in the estimated base year 2002 costs. These cost estimates are inflated at 3.0% per annum to the forecast year of disbursement. This assumed inflation rate is equal to the average annual compounded change during the past 15 years in the CPI – All Urban Consumers "All Items".

STAR Solutions will refine and update the estimated costs of each phase, as the project is further developed.



3.a Cost Breakdown by Phases

Provide a preliminary estimate and estimating methodology of the cost of the work by phase and/or segment (e.g. planning, design, construction).

Base Proposal Estimated Cost

The cost estimates for each phase and type of cost of our Base Proposal are summarized in the following table.

STAR Solutions I-81 Project

Preliminary Estimated cost of Each Phase (in 2002 \$)

Type of Cost	Phase 1	Phase 2	Phase 3	Phase 4	TOTAL
--------------	---------	---------	---------	---------	-------

CONFIDENTIAL AND
PROPRIETARY INFORMATION

Subtotal	862,145,028	952,676,008	2,957,895,355	2,767,924,928	7,540,641,319
Pavement Warranty	107,264,062	101,941,515	233,974,045	205,963,211	649,142,834
Total	\$969,409,000	\$1,054,617,523	\$3,191,869,400	\$2,973,888,139	\$8,189,784,153

The above estimated construction costs of \$7.54 billion are stated in 2002 dollars. An assumed 3.0% annual inflation to the forecast year of disbursements results in the estimated project costs of \$9.91 billion included in the financial analysis. The proposed KPRI pavement warranty cost of \$649.12 million (in 2002 dollars) is in addition to the estimated construction costs and is also shown in the above table.

The above costs relating to each phase are estimated to be disbursed under the following schedule. As can be seen from the following table, substantial costs relating to the Planning, Environmental, Mobilization, Engineering, Design, Project Management and other components of Phases 2, 3 and 4 are anticipated to be incurred during the first five years of the project.

3.a Cost Breakdown by Phases

Provide a preliminary estimate and estimating methodology of the cost of the work by phase and/or segment (e.g. planning, design, construction).

STAR Solutions I-81 Project

Preliminary Estimated Timing of Disbursements for Each Phase (in 2002 \$)

Year of Disbursement	Phase 1	Phase 2	Phase 3	Phase 4	TOTAL
2004-2008	\$969,409,090	\$451,351,197	\$695,946,373	\$381,528,227	\$2,498,234,887
2009-2010	0	581,116,497	525,136,288	327,296,067	2,682,976,121
2011-2014	0	22,149,829	1,969,717,680	691,108,613	2,682,976,121
2015-2018	0	0	1,069,059	1,573,955,233	1,575,024,292
Total	\$969,409,090	\$1,054,617,523	\$3,191,869,400	\$2,973,888,139	\$8,189,784,153

Projected annual disbursements on project costs during 2004-2018 are set out in Exhibit 3-2.

Alternative Tolling Concept Additional Estimated Cost

One of the potential additional funding sources that the Department could consider utilizing to fund the Project is an Alternative Tolling Concept, which also would involve charging tolls on Light Commercial Vehicles and Passenger Cars ("Light CV and PC"), collected at six barrier toll plazas located in non-urban areas through the I-81 corridor. At these barriers, tolls would be collected both in attended lanes via cash and ETC and in express lanes via ETC. One mainline toll plaza would be constructed in each of Phases 1 and 4 and two mainline plazas would be constructed in each of Phases 2 and 3. Our recommendation would be that such plazas be placed in non-urban locations that would result in no toll being levied on the vast majority of local and commuter traffic.

STAR Solutions estimates that the additional capital costs of the six 10-lane barrier toll plazas and related facilities, including additional toll equipment, would be approximately \$55 million (in 2002 dollars). These barriers would be constructed in conjunction with the construction of the dedicated lanes for Heavy Commercial Vehicles during each respective phase of the I-81 project. Tolls are assumed to be collected at each barrier plaza only when the dedicated Heavy Commercial Vehicle lanes for the respective phase are completed. The additional capital funding that could be obtained from the Alternative Tolling Concept is described in Tab 3.c below.

One use of such additional capital funding capacity could be not only funding I-81 improvements but also funding additional projects such as the Eastern Bypass (Rte. 37) around Winchester. This Bypass would provide a substantial benefit to the functionality of I-81. At the present time there are mixed reactions to building the Bypass. Consequently, we have not included it within our Base Proposal. But we will work with VDOT and the affected localities to determine the viability of building this Bypass. STAR Solutions estimates the cost to complete the Bypass to be \$400 million.



3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

Summary

STAR Solutions has developed a plan for the development, design, financing, construction and operation of the project that will result in substantial safety improvements and traffic efficiency being implemented over the course of the project. This plan will allow the Commonwealth to realize the full benefits of the I-81 improvements within 15 years, substantially sooner than could be accomplished with traditional construction and funding mechanisms. We estimate that 30-50 years would be required using the resources currently identified by VDOT for I-81 improvements. Our plan also recognizes the need for long-term solutions to the problems on I-81, not just interim fixes that will be obsolete as soon as they are completed. In addition, our plan for financing the improvements will be cost-effective by using a mixture of funding sources.

STAR Solutions will work with the Commonwealth and the Department to ensure that the financing plan for the project is fully consistent with Governor Warner's proposals to implement VDOT financial reforms and require additional accountability. This will include the adoption of a detailed funding plan, assistance with the development of quarterly reports to the public and General Assembly, and work with local governments to ensure consistency with local land use, economic development, and transportation planning. Initial costs of planning, environmental and design work for the project will begin to be funded after VDOT and STAR Solutions have negotiated a Comprehensive Agreement. Toll Revenue Bonds and multi-phase TIFIA Loans are forecast to fund a substantial portion of the project, based on financing capacity from forecast toll revenues. The financing plan also assumes that substantial federal earmarked funds will be available for the project, which can be used to fund initial mobilization and development, particularly the environmental work and right of way acquisition. STAR Solutions has had on-going dialogue with federal and state officials concerning this assumed level of federal funding. In addition, we have assumed that VDOT will allocate to the project a portion of the funds that are currently programmed for I-81 projects in the Virginia Transportation Development Plan. As discussed with the VDOT Commissioner on December 17, 2002, and as required by the September 19, 2002 RFP, we have identified in Tab 3.c below the funding gaps in the total project and are offering potential solutions (both funding sources and construction alternatives) that could be utilized to eliminate the projected capital funding gaps. We look forward to working with VDOT to assure the most favorable capital plan.

We propose that the annual costs of toll collection and administration will be paid from project toll revenues. To maximize the leveraging capacity of the toll revenue stream, STAR Solutions proposes that VDOT continue to be fully responsible for (a) all maintenance services during the construction of each phase and (b) maintenance, repair and rehabilitation of the improved I-81 highway and bridge assets, other than repair and replacement of toll collection equipment and pavement covered by the proposed pavement warranty which begins when each phase is completed. This is the same responsibility that VDOT would have for any other roadway that is part of the Commonwealth's highway system. However, unlike other VDOT maintained roadways, after the four phases of I-81 project improvements are completed, STAR Solutions proposes that VDOT be reimbursed, on a subordinate basis, for these costs from available net toll revenues.

3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

As noted in Tab 2, STAR Solutions is also willing to provide, as an option, a multi-year contract to perform on-going maintenance, repair and rehabilitation of other I-81 assets, other than the toll collection facilities and the pavement under the KPRI warranty. This optional service is not part of STAR Solutions' Base Proposal for the project, but we would be willing to more fully explore this option at VDOT's request. Following is more detailed description of our proposed:

- Development plan
- Capital funding sources
- Project implementation and funding schedule, and
- Operating plan.

Development Plan

STAR Solutions is prepared to start development of the project immediately after execution of a **Comprehensive Agreement** that sets forth the mutual responsibilities of VDOT and STAR Solutions for design, financing, construction and operation of the project. The Comprehensive Agreement will include a **Financing Plan** that outlines the expected financial resources that STAR Solutions and VDOT will provide during the multi-year project implementation period. In addition, the Comprehensive Agreement will specify STAR Solutions' and VDOT's mutual obligations regarding funding and execution of toll collection, maintenance, repair and rehabilitation of the completed improvements. The terms of the Comprehensive Agreement will provide the basis for advancing the plan of finance with third-party lenders, including the federal government under USDOT's TIFIA program.

Prior to closing the initial financing, STAR Solutions also will work with VDOT and USDOT to accomplish the following tasks:

- Receive pilot program designation from the Federal Highway Administration to allow tolls to be collected on existing interstate highways when the tolls will be used to fund reconstruction of that highway as established by Section 1216(b) of the Transportation Equity Act for the 21st Century ("TEA-21"). VDOT has previously applied to FHWA for such a designation for the I-81 project, however, that application may need to be amended to accommodate changes in the scope of the STAR Solutions proposal that were responsive to the VDOT RFP and to address stakeholder concerns.
- Partner with VDOT to obtain federal earmarks as well as funding from the Intelligent Transportation Systems program, the National Corridor Planning and Development Program, the Coordinated Border Infrastructure Program, homeland security appropriations for emergency preparedness/evacuation readiness, or other federal programs that may be created during the development period.
- Coordinate Virginia Transportation Development Plan I-81 improvements with the improvements to be implemented by STAR Solutions.
- Complete geotechnical work and surveys.

3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

- Update environmental studies and reports.
- Acquire all necessary right-of-way.
- Obtain permits and approvals.

Pending the receipt of proceeds from the first series of Toll Revenue Bonds and the first tranche of the TIFIA Loan, the proposed sources of funding for these tasks are federal earmarks and amounts allocated for I-81 projects in the current Virginia Transportation Development Plan.

Capital Funding Sources

STAR Solutions' proposed plan of finance under our Base Proposal for the I-81 Project has three principal capital funding sources for development, design and construction:

- Federal funds that are earmarked for the separation of heavy commercial vehicles on I-81 in Virginia.
- Resources deriving from net toll revenues, composed of four types of resources:
 - Tax-exempt Toll Revenue Bonds (the "Bonds") issued by a special purpose non-profit entity.
 - TIFIA credit assistance in the form four tranches of a subordinated direct loan (the "TIFIA Loan") secured by net toll revenues.
 - Net Toll Revenues collected from a toll (the "Interim Toll") that is imposed immediately throughout the I-81 Corridor on all Heavy Commercial Vehicles, as well as tolls charged on all Heavy Commercial Vehicles on each completed phase of the project (the "Completed Toll") that are not used to pay debt service.
 - Investment Earnings on balances in the project's construction account and other funds not pledged to debt service on the Bonds.
- Funds that VDOT has allocated for I-81 Corridor projects in the current 2003-2008 Virginia Transportation Development Plan.

Each of these six sources is described below.

Federal Earmarks. STAR Solutions proposes to partner with VDOT, FHWA and Congressional leadership to secure on-going earmarks for the I-81 Project in future federal reauthorizations of TEA-21. In fact, STAR Solutions has been working aggressively on this objective during the past 12 months and is pleased to report substantial interest on the part of Congressional leadership. This demonstrates that a project of this scope and magnitude will be recognized by Congress in providing significant economic benefits to the Commonwealth and the nation as well as improved safety and reliability to all users of I-81. Our preliminary financing plan includes receipt of earmarked funds during 2004-2015. Our plan of finance for the project is flexible enough to allow partial funding of the needed federal funds in the next six-year federal authorization bill, and commits us to partner with VDOT to obtain earmarked funds in the subsequent six-year federal transportation authorization. Any State matching requirements for the proposed federal earmarks would be satisfied through the "soft match" represented by the Toll Revenue Bonds.



3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

Toll Revenue Bonds. STAR Solutions' plan of finance includes Toll Revenue Bonds (the "Bonds") to be issued periodically during the four phases of the 15-year project implementation period. All Bonds will be secured by toll revenues (net of toll collection and administrative costs) derived from tolls charged on all completed phases of the project, plus from the Interim Toll charged on the entire 325-mile length of I-81. (See "Project Implementation and Funding Schedule" below.) STAR Solutions proposes to establish a "63-20" non-profit organization with authority and responsibility for issuing the tax-exempt Toll Revenue Bonds. These Bonds will be fully non-recourse to the Commonwealth or any of its political subdivisions.

The Toll Revenue Bonds will be secured by a senior lien on net toll revenues that are available after funding the costs of toll collection. The TIFIA Loan, described below, will have a junior lien on net revenues. We anticipate that the senior lien Toll Revenue Bonds will have a 40-year final maturity and a forecasted minimum debt service coverage level of 150%. Assuming the preliminary toll revenue forecasts are confirmed in an investment grade traffic and revenue report, STAR Solutions' investment bankers, Salomon Smith Barney, Lehman Brothers and Morgan Keegan (the "Banking Team"), feel that this coverage level is sufficient to obtain one or more investment grade credit ratings. We also expect that bond insurance would be available for senior lien Bonds to obtain "AAA" ratings. Please see letters of support from each member of the Banking Team attached as 3-1.

Given the substantial existing traffic on I-81, the lack of alternate routes that could cause diversion of traffic from the corridor, and the preliminary estimates of net toll revenues that have been prepared to date, this type of financing appears to be feasible as a method for funding a significant portion of the project's capital costs. This conclusion is subject to confirmation in an investment-grade traffic and toll revenue study, which will be prepared closer to the issuance of the Bonds. See "Pro Forma Forecast of Operations" in Tab 3.c. below.

TIFIA Loan. Our plan of finance incorporates a direct loan under the U.S. Department of Transportation's ("USDOT") TIFIA program, or its successor (the "TIFIA Loan"). The TIFIA Loan that is funding each phase of the project is assumed to be committed to when all financing for that phase is arranged. Consistent with the plan of finance achieved by Salomon Smith Barney and Lehman Brothers for the Central Texas Turnpike System in August 2002, this secured loan agreement will allow STAR Solutions to issue tax-exempt Bond Anticipation Notes ("BANs") for construction financing of this portion of project costs. The TIFIA Loan would be drawn one year after the end of construction of each phase and used to repay the BANs. Although the amount of TIFIA credit assistance provided to a project may fund up to 33% of eligible project costs under current law and regulations, our preliminary financing plan for the Base Proposal assumes the TIFIA Loan will fund only approximately 13% of total project costs.

Based on our meetings with the Governor's Advisor for Transportation Reauthorization and staff of the TIFIA Joint Program Office at FHWA during the past year, STAR Solutions believes that our project will be an attractive candidate for TIFIA assistance. The project directly satisfies most of the TIFIA program's statutory criteria, including:

3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

- The project running “border-to-border” and having regional significance.
- The project’s strong credit as represented by tolling of existing commercial traffic in a heavily-traveled corridor.
- Use of a public/private partnership under the Commonwealth’s well-established PPTA program.
- Accelerated project development and completion.
- State-of-the-art, open-road, 100% ETC system for Heavy Commercial Vehicles as well as both open-road ETC and cash toll collection for an Alternative Tolling Concept.
- Reduced congestion, increased safety and improved air quality.
- Reduction in the amount of Federal grants that otherwise would have been needed to reconstruct and widen I-81 as a non-toll highway.

Our plan of finance anticipates that the TIFIA Loan will be disbursed in tranches as each phase of the project is implemented. The TIFIA Loan will have a junior lien on net toll revenues, subordinate to the Toll Revenue Bonds. The minimum coverage allowed by the USDOT in the TIFIA Program is 110% of aggregate Bond debt service and TIFIA repayments. Because the I-81 project involves improvement of an existing high-traffic Corridor, STAR Solutions’ plan of finance assumes this projected minimum 110% coverage of aggregate debt service. The fixed borrowing rate for the TIFIA Loan is the assumed rate of the comparable United States Treasury Security at the time of each tranche of the Loan, plus five basis points for servicing by the USDOT.

The preliminary financing plan assumes that each tranche of the TIFIA Loan is structured to have a final maturity that is 35 years after the substantial completion of the respective phase funded by that tranche of the TIFIA Loan. We have also assumed that the initial repayment of each tranche of the TIFIA Loan will be deferred until five years after the completion of each phase of the project. This delayed amortization feature assists the project in completing its phased openings.

Toll Revenues. As described in detail in the Tab 3.c below, STAR Solutions proposes to collect an “Interim Toll” on heavy commercial vehicles on all sections of I-81 beginning in 2006, which is also after immediate safety and traffic management improvements have been implemented. The Interim Toll collected on heavy commercial vehicles traveling on each section of I-81 will be replaced by the final toll rate schedule (the “Completed Toll”) upon the completion of each phase. Any toll revenues that are not required during the project implementation period (i) to pay toll collection costs, (ii) to fund debt service and reserves for Toll Revenue Bonds or (iii) to repay the TIFIA Loan would be used to pay project costs.

Investment Earnings. Investment income on fund balances will be applied to project costs to the extent not needed to pay interest during construction or to fill-up reserves.

3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

VDOT Current Allocations. The current Virginia Transportation Development Plan for fiscal years 2003-2008 identifies \$169 million of resources that are allocated for various projects on I-81 and have not been expended as of December 2, 2002. These include funding for the costs of:

- Feasibility studies
- Interchange improvements
- Bridge replacements
- Bridge and roadway widening
- Traffic management and ITS applications and
- Climbing lanes and guardrail and safety improvements.

STAR Solutions' plan of finance assumes that this \$169 million of funds will continue to be made available for project costs. We have assumed that they will be used over the next five years to assist with funding Phase 1 and to fund preconstruction project costs and interim improvements on the other three phases. As previously noted, if VDOT were willing to commit to the STAR Solutions team the level of funding that would have been set aside for I-81 improvements in future Transportation Development Plans, those funds would help close the funding gap in our Base Proposal as well as possibly support other optional improvements outlined in Tab 2 or in our Alternative Tolling Concept.

STAR Solutions would agree to undertake reimbursement of all or a portion of such VDOT funding, if additional toll financing capacity were available after the completion of all four phases. In addition, it is possible that VDOT contributions could be repaid from excess toll revenues, subject to the terms and conditions included in the bond resolution for the Toll Revenue Bonds and TIFIA Loan.

Additional Funding Sources. Although not part of our plan of finance, STAR Solutions anticipates that additional funding sources may also be available to assist in the accelerated development of I-81 improvements. For example, the proposed toll collection system will utilize fiber optic cable in the I-81 right-of-way; STAR Solutions will maximize the value of this fiber and apply any lease receipts achieved during the project implementation period to project costs. Additional resources may be available from the Intelligent Transportation Systems program, the National Corridor Planning and Development Program, the Coordinated Border Infrastructure Program, homeland security appropriations for emergency preparedness/evacuation readiness, or other federal programs that may be created during the development period.

STAR Solutions' plan of finance combines the benefits of substantial direct investment in the I-81 project with the assurance of the lowest overall cost of project capital. By minimizing the cost of capital the Commonwealth will be assured that toll rates are established and maintained at the minimum level required to develop, operate and maintain the project and that the maximum amount of capital funding is generated from the projected net toll revenues.



3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

The STAR Solutions team will provide the following commitments to the project:

- “At-risk” funding of the consortium’s pre-development costs until execution of the Comprehensive Agreement. STAR Solutions currently estimates it has expended \$4.5 million to develop, refine and submit this Proposal.
- Firm cost and schedule guarantees that will be required by the capital markets to secure low-cost tax-exempt financing. See Tab 3.d below.
- The 20-year pavement warranty should be viewed as a significant contribution of equity to the project. Although VDOT purchases the warranty (which is paid for through toll revenues), it is anticipated that the warranty itself will reduce future pavement maintenance expenses that would be incurred by VDOT absent the warranty. For example, VDOT paid \$10 million for the warranty on Route 288 but estimated the cost to provide its own maintenance over the 20-year life of the project would be \$17-\$18 million. This savings should be seen as a contribution of equity by the STAR Solutions team because of the risks shifted from VDOT to the private sector and the costs savings which accrue to VDOT that can be spent on other projects statewide. Such a reduction in life-cycle costs is achieved through the PPTA framework. Further, since the total amount of the warranty is carried as a liability on the KPRI balance sheet, thus tying up those funds and eliminating their use for other corporate initiatives, it is nearly identical to making a direct capital commitment to this project.
- CONFIDENTIAL AND PROPRIETARY INFORMATION
- Finally, we believe the efforts we have made to date to advance the concept of tolls to provide the primary funding for this project is itself a significant contribution to this project. Prior to the public debate we initiated regarding this funding mechanism, VDOT had concluded that there was insufficient funding to complete even its own improvements plan. The toll revenue represents new money coming into the transportation system to deliver needed improvements and to allow VDOT’s scarce transportation dollars to be spent elsewhere in Virginia.

In addition to the above commitments, STAR Solutions explored a funded equity position in the project. However, as the Department is aware, important highway infrastructure projects in the U.S. are able to secure uniquely low-cost funding through a combination of the tax-exempt bond markets and the federal government (through the TIFIA program). Together these capital sources will allow **non-recourse** leveraging of the toll revenue stream at an aggregate debt service coverage that is much more aggressive than available for private sector (non-governmental) projects. For example, our plan of finance takes advantage of a very aggressive 1.10x projected coverage of aggregate debt service on the senior Toll Revenue Bonds and the subordinate TIFIA

3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

Loan. As described below, such a low coverage factor under such favorable terms would be unattainable for private sector projects that are funded in part by equity. In other words, any funded equity position made by the STAR Solutions team in the project would have to be paid back through project revenues at a higher capital cost than we could achieve by using our financing plan to generate the same amount of funds.

Combining tax-exempt senior Toll Revenue Bonds with the subordinate TIFIA Loan not only assures the lowest cost of capital, but also assures the greatest degree of operating flexibility for the project. In exploring all funding options, we concluded that any other capital source, including the issuance of deeply subordinated debt and/or equity, would become either extremely expensive and/or very restrictive. With regard to funded equity, current tax law would prohibit an equity investment that participates solely in net profits derived from a project funded with "governmental purpose" tax-exempt bonds. Furthermore, an equity investment would certainly require a rate of return that is far greater than the 5.45%-6.20% rates assumed for the various tranches of the subordinate TIFIA Loan. An equity participant would also probably require additional covenants and agreements which would further complicate the process. For these reasons we chose to forgo the equity option.

With regard to deeply subordinated debt (*i.e.*, debt that is paid after TIFIA debt service), we note that: (1) debt issued based on projected aggregate coverage of less than the 1.10x would be perceived as "quasi-equity" and would require equity-like returns; and (2) any potential investors in bottom-tier subordinate debt (below TIFIA) would likely require more restrictive financing covenants than the federal government does on the TIFIA program. For example, TIFIA allows the deferral of interest payments for up to five years after project completion. Subordinate debt holders are not likely to offer the same type of flexible repayment terms.

Therefore, because one of our primary objectives is to secure the lowest all-in borrowing costs for the project (and to thereby require the lowest toll structure to repay the debt, the least amount of contribution from the Commonwealth, and the maximum funding capacity from projected toll revenues), we have concluded that our capital structure is the most favorable for the I-81 project. However, we will continue to explore all funding possibilities throughout the pre-development phase of the project.

Project Implementation and Funding Schedule

Proposed Implementation Schedule. STAR Solutions proposes to implement the I-81 project in four phases. The project schedule shown in Tab 2.f details the forecast construction period for each phase.

Planning, environmental and preliminary engineering work would commence immediately on all four phases. All right-of-way acquisition necessary for all four phases is forecast to occur from 2005 through 2007 and be funded in the first financing in 2005. Construction work on Phase 1 is forecast to commence in 2005, as is preliminary design, engineering, right-of-way, utilities and environmental work on portions of Phases 2, 3 and 4. STAR Solutions estimates that the four phases will be completed by the end of 2008, 2010, 2014 and 2018, respectively.



3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

Proposed Funding Schedule. The Comprehensive Agreement with VDOT will identify the initial sources of funding for planning, environmental and design work. Federal earmarks and VDOT contributions are allocated as needed to fund these costs during 2004. Toll Revenue Bonds and the BANs/TIFIA Loan are sources in 2005, 2009, 2011 and 2015 when sufficient funding is arranged for the completion of each respective phase of the project. Each series of Toll Revenue Bonds and each tranche of the BANs/TIFIA Loan are sized based on net toll revenues that are forecast to be collected from the Interim Toll and the Completed Toll on any phase that is completed with the proceeds of the Bonds and BANs as well as other committed resources. The other project costs not funded by the above sources are funded by federal earmarks and any remaining VDOT allocations from its 2003-2008 program. The estimated aggregate and annual timing of each funding source and use during the 2004-2018 project implementation period are summarized in Exhibit 3-2.

STAR Solutions' Banking Team is confident that the plan of finance as set forth in this conceptual proposal can and will be executed on behalf of STAR Solutions and the Department, assuming that the minimum required ratings are obtained for the various components of the plan of finance and that other basic capital markets requirements are met. The Banking Firms feel confident that ratings requirements and other minimum requirements can and will be met and will be aggressive in working toward implementing the proposed plan of finance. The Banking Firms expect to refine the financing plan over the course of project negotiations and development of the Comprehensive Agreement and other financing documents.

It should be understood that this proposal shall not constitute or give rise to any obligation to provide or commit to provide any financing, including financing for the project; such an obligation would arise only under separate written agreements, which would include standard conditions precedent, acceptable to the Banking Firms in each firm's sole discretion.

Operating Plan

STAR Solutions' Operating Plan for the project includes three principal components:

- Toll collection managed by an unaffiliated private company or STAR Solutions itself.
- Administrative functions (accounting, legal, contract oversight, etc.) managed by STAR Solutions.
- Costs of Asset Management of all I-81 assets except toll collection facilities and pavement covered by the KPRI warranty to be the responsibility of VDOT.

Toll Collection. Under our Base Proposal, tolls will be collected from all commercial vehicles with four or more axles ("Heavy Commercial Vehicles") that must travel on two dedicated lanes that are immediately adjacent to the I-81 median. We anticipate that design, installation, testing and operation of an open-road, latest-technology, all-electronic toll collection ("ETC") system will be contracted to a private company under a long-term management contract. The options for the configuration of the toll collection system are described in Tab 3.c below. Under our Alternative Tolling Concept, barrier tolls will be collected in both attended lanes via cash and on open-road,

3.b Development, Financing and Operation Plan

Submit a plan for the development, financing and operation of the project, identifying: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

express lanes via ETC from all other vehicles (Light Commercial Vehicles and Passenger Cars) that pass through the six barriers located in non-urban areas through the I-81 corridor. STAR Solutions will partner with VDOT to ensure that the ETC system is compatible with the existing Smart Tag system used elsewhere in Virginia and with systems in nearby states to ensure that effective toll collection and enforcement mechanisms are available. It should be noted that during our various meetings with stakeholder groups, particularly the trucking community, they have requested that such a system be compatible with the E-ZPass system used in West Virginia, Maryland and states further north. Therefore STAR Solutions proposes to work with VDOT, other non-VDOT toll facilities and E-ZPass authorities to refine how best to proceed with the implementation of an E-ZPass compatible ETC system for I-81. For example, STAR Solutions has assumed that VDOT, in conjunction with other Smart Tag toll authorities, would decide how best to fund E-ZPass membership as well as implement and operate an E-ZPass compatible Service Center.

Administration. STAR Solutions will be responsible for administrative functions associated with the toll operations, including accounting, legal, contract oversight and bond trustee requirements. We have assumed that the State will continue to be responsible for providing normal public safety and highway patrol functions, which will be facilitated by the ITS capital improvements included in our project.

Asset Management. STAR Solutions proposes that VDOT be financially responsible for Asset Management of the tolled and any non-tolled roadway and ramps, other than that covered by the KPRI pavement warranty, as well as all structures and other I-81 assets. However, as an option in this Conceptual Proposal, STAR Solutions proposes, after the completion of each phase of the project, to provide fence-to-fence Asset Management of both existing facilities as well as the new improvements relating to that phase. Further, any additional project revenues over current expectations could be used to pay for these services regardless of the provider.

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

This section discusses the assumptions for the following elements included in our financial plan:

- Traffic and Toll Revenues
- Toll Collection and Administrative Costs
- Asset Management Costs
- Financing Costs
- Preliminary Flow of Funds

The section concludes with the pro forma forecast for the construction, financing and operation of the Base Proposal and the Alternative Tolling Concept for the I-81 project, including financing schedules. The construction and financing activity is projected to occur from 2004 through 2018. Operations are projected to occur from 2006 until the final projected maturity of all debt in 2054.

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

Traffic and Toll Revenues

STAR Solutions has prepared preliminary estimates of annual traffic, annual toll revenue, annual costs of toll collection and the capital cost of the toll collection system that have been utilized in the financial analysis for our Base Proposal and an Alternative Tolling Concept. These estimates should be considered preliminary and subject to refinement during the course of project development.

Base Proposal

Toll System Configuration. The I-81 tolling concept includes the deployment of an open-lane, fully automated, electronic system of toll collection on commercial vehicles with four or more axles ("Heavy Commercial Vehicles"). This conceptual system will facilitate the flow of traffic by eliminating the bottlenecks traditionally associated with manual toll collection systems. An additional benefit of this tolling concept is the reduction in on-going manpower and maintenance needs and costs associated with staffing manual toll collection lanes. This concept has proven effective on the 407 project in Toronto, Ontario, and on the SR 91 Express Lanes in Orange County, California.

We analyzed two different tolling configurations. The first is a tolling system whereby toll "read-zones" are implemented on each entry and exit ramp along I-81 as well in mainline truck lanes at the northern and southern ends of I-81. This assumes 92 interchanges with 4 open-lanes each for a total of 368 ramp lanes plus a six express lane mainline plaza (3 lanes each direction) at the northern and southern ends. Truck only lanes would be restricted to vehicles of 4 axles or greater. Vehicle classification and separation would be accomplished through use of state-of-the-art sensors. This electronic tolling concept prevents any toll-free movements within the entire system. The second type of tolling system involves the implementation of six mainline "split" plazas having 14 lanes each (seven in each direction). Four of the seven lanes would be open-road, express lanes and three would be attended lanes with ETC capability. The mainline segment tolling zones would be located between selected I-81 interchanges. As with conventional open-barrier systems, this tolling configuration may allow some toll-free movements between certain interchanges. The mainline tolling zone locations would be located in order to preclude as many of these toll-free movements as possible.

The financing plan included as our Base Proposal assumes that a "closed" ETC system is utilized for all four-axle commercial vehicles both for the Interim Toll and for the Completed Toll for any completed phase. STAR Solutions believes that it is feasible to design, procure and install this type of ETC system for operations beginning in 2006 and that the equipment cost of this closed ETC system on all Heavy Commercial Vehicles is approximately \$75 million and related civil construction and fiber communication system costs are approximately \$25 million. The estimated project costs in the pro forma analysis includes these \$100 million of expenditures in 2004 and 2005.

The conceptual project ETC system consists of open-road lane equipment at all entry/exit ramps

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

(average of four per interchange) plus 12 mainline lanes plus backoffice plaza equipment and systems to support transaction/revenue reconciliation, auditing, reporting, transmission to the Smart Tag central host and violations processing. The conceptual ETC system as proposed assumes that a satellite Customer Service Center (CSC) would be located nearby the mainline lanes located at the northern and southern extents of I-81 within the Commonwealth. STAR Solutions assumes that the lane equipment would be E-ZPass compatible and that VDOT/Smart Tag joins the Interagency Working Group responsible for E-ZPass prior to the installation of toll equipment along I-81 to achieve E-ZPass reciprocity through the existing Smart Tag Service Center. In addition, the lane equipment includes the use of a Violations Enforcement System (VES) utilizing dual cameras (front/back) with optical-character recognition (OCR) in a backoffice Violations Processing System (VPS) that would be utilized in all lanes. These satellite CSCs would be linked to the Central Smart Tag CSC located in Reston, Virginia. A Violations Processing Center (VPC) would be established to support processing violations occurring on I-81.

All the system elements would be connected over a high-speed fiber optic backbone.

The backoffice plaza system would perform many functions, including:

- Prepare statements for traffic and revenue reports on a periodic basis;
- Receive ETC transactions from the tolling zone lane controllers and transmit them to the Reston Smart Tag CSC for billing and statement processing;
- Send transaction records to the Reston Smart Tag CSC or other reciprocal toll agencies for payment and auditing of those the payments;
- Produce reports of system operation, lane revenue, operational status and updates, traffic measurement, repair statistics, and parts inventory; and
- Manage toll collection enforcement activities, including violation notification and fine collection and processing.

For either tolling configuration to accurately assess tolls on only commercial vehicles, an automatic vehicle classification ("AVC") system will be integrated into the tolling process. At the conceptual level, each tolling location would include two gantries. The first gantry would include the AVC equipment, an overhead scanner device, and a video enforcement system ("VES") camera that would be positioned to capture the rear plate of any vehicle that does not contain a valid tag. This equipment would be installed over each of express lane. The second gantry would include the ETC antenna and a transaction indicator light. Another VES camera would be located slightly downstream from the second gantry and would be responsible for the capture of the front vehicle license plate of any vehicle that traverses the read zone and does not have a valid tag. A lane controller device, located in each lane, includes software that determines how each vehicle is processed. The AVC system would use a different configuration of sensors for high-speed ramps (e.g., interchange to interchange) than for lower speed ramps to maintain appropriate accuracy standards.

Toll Transaction and Revenue Methodology. STAR Solutions prepared preliminary traffic and revenue estimates using VDOT average daily traffic (ADT) data extracted from I-81 improvement

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

studies. Two-way ADT volumes along with passenger and commercial vehicle percentages were provided for each mainline segment for years 1996, 2005, 2010, 2015 and 2020. From this data, toll-free commercial vehicle volumes by segment were estimated for the base year, 1996, and future years.

A manual toll diversion analysis was then utilized to develop traffic volume estimates for I-81 operated as a tolled facility. The diversion analysis estimates the number of vehicles that would remain on the highway under tolled conditions. Since no origin/destination-specific data was available for use in this analysis, some typical trip origins and destinations were identified. Some of the origin/destination pairs included trips currently being made along the entire stretch of I-81 from the I-77 Interchange to the Washington, D.C. area and points north and from the southeastern states to I-64 corridor towns of Charlottesville and Richmond. Other origin/destination pairs were also selected. For each movement in the corridor, the cost of making the trip on I-81 was compared with the cost of making the trip via an alternative existing highway route. The costs associated with trip making consist of three items: the distance traveled, the time it takes to make the trip, and any toll costs associated with the trip. All costs are expressed in dollars by applying a value of time and a cost per-mile to the travel time and distance, respectively. A percentage of trips are retained on the project, in this case I-81, based on a cost ratio that compares the cost of a trip using I-81 to the cost of a trip using the next best alternate route.

Toll Rates. Because of the exploratory and conceptual nature of this analysis, a computerized traffic modeling approach was not utilized. While several alternate toll rates were assessed, it was not possible to determine if these rates represent the optimum toll. However, rates tested are within a range of rates currently levied on existing toll roads operating in the United States.

For each toll configuration, closed and open, STAR Solutions tested three per-mile based toll rate alternatives. For the closed system, the first alternative assessed revenue potential assuming \$0.03 per-mile (in 2000 dollars) is levied on Heavy Commercial Vehicles during construction and \$0.21 along sections where dedicated lanes have been completed. The second alternative levies per-mile tolls of \$0.05 and \$0.15 (in 2000 dollars) in non-improved and dedicated sections, respectively. The third alternative levies per-mile toll rates of \$0.10 and \$0.21 (in 2000 dollars), respectively.

This third alternative was used for our analysis, as it produces the greatest amount of annual toll revenue, particularly in the early years when most of the dedicated truck lanes have not yet been constructed.

It is worth noting that these assumed toll rates are comparable to what Heavy CV's now pay on other inter-city toll roads and turnpikes in the U.S. even though those facilities do not include many of the freight-oriented improvements envisioned in the STAR Solutions plan. The following chart shows current per mile toll rates for a 5-axle vehicle on selected comparable inter-city toll roads and turnpikes:

	<u>Truck Toll</u>
Delaware Turnpike	\$0.450

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

Florida Turnpike	\$0.163
Maryland Turnpike – JFK Highway	\$0.160
Kansas Turnpike	\$0.103
New Hampshire Turnpike – Blue Star	\$0.217
New Jersey – Atlantic City Expressway	\$0.227
New Jersey Turnpike	\$0.190
New York Thruway – Mainline Section	\$0.120
Ohio Turnpike	\$0.120
Oklahoma – Will Rogers Turnpike	\$0.161
Pennsylvania Turnpike – East-West Section	\$0.155
West Virginia Turnpike	\$0.145

The assumed Heavy CV toll rates on I-81 are in fact lower than the rates on other existing toll roads in Virginia such as the Chesapeake Expressway, the Dulles Greenway and the Powhite Parkway.

The per-mile rates assumed to be paid by all Heavy CV's on I-81 in various years are as follows, after taking account of assumed 3.0 % annual inflation and considering each phase's estimated construction schedule.

CONFIDENTIAL AND PROPRIETARY INFORMATION

Toll Revenue Estimates. Using the \$0.10/\$0.21 toll rates (2000 dollars), STAR Solutions estimates that there would be 8,133,000 toll transactions throughout the entire length of I-81 in 2006, increasing by 0.6% per year, on average, by 2021 (the third year after completion of all four phases of the project). (See Exhibit 3-7.) We have assumed that annual traffic growth continues after 2021 at the following average annual rates: 2021-2040, 2.0%; 2041-2050, 1.5%; and 2051-2060, 1.0%. In addition, for conceptual modeling purposes, the financial analysis assumes that toll rates will increase with inflation with no reduction in traffic. Inflation is assumed to be 3.0% per year from 2000 to 2018 and thereafter is assumed to be 2.5% per year.

STAR Solutions has forecast annual toll revenues, based on the assumed toll rates and Heavy Commercial Vehicle toll traffic, from both the Interim Toll on Heavy Commercial Vehicles on all of I-81 (pending completion of each phase of the project) and the Completed Toll collected from Heavy Commercial Vehicles using any completed phases. Exhibit 3-7 summarizes the forecast annual toll revenues from the Interim Toll and each completed phase. These are the toll revenues utilized in the financial analysis included in our Base Proposal.

During meetings with a number of stakeholder groups, the STAR Solutions team has learned about interest in exploring various tolling schemes to provide relief to targeted user groups. Some of these

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

include reduced tolls for empty trucks, agricultural exemptions, commuter rates for trucks that use I-81 several times per week, or reduced tolls for local traffic. In addition, there has been some public discussion of Virginia tax credits for in-state trucking firms. The STAR Solutions team does not oppose these efforts and is willing to explore with VDOT their implementation in a way that does not violate any constitutional provisions or undermine the financing plan.

Alternative Tolling Concept

Toll System Concept. The alternative tolling concept would be the base condition with the addition of six mainline toll plazas through the I-81 corridor, which would be used to collect toll payments from Light Commercial Vehicles and Passenger Cars as well as from any Heavy Commercial Vehicles that do not have an on-board ETC transponder that is in good standing. The toll collection configuration would continue to be ETC-based point-to-point for Heavy CV's and each entry and exit ramp would be equipped with ETC, AVC and VES equipment to effectively monitor vehicular movement and to audit the tolling system. The ETC system would be designed, implemented and operated in the same manner as the base configuration concept, as described previously in this section with the exception that attended lanes would have a more standard AVC configuration consisting of loops, treadles and light curtains, patron toll display, lane use signals, as well as a manual lane terminal for the attendant. Ramps would continue to offer exclusive I-81 entry and exit movements to Heavy CV's.

One mainline toll plaza would be constructed in each of Phases 1 and 4 and two mainline plazas would be constructed in each of Phases 2 and 3. These plazas would be constructed as conventional barrier toll plazas and would be accessed via slip ramps from the mainline travel lanes. The ETC transponder equipped Heavy CV's would be allowed to traverse the tolling zone under a mainline lane gantry from which readers and antennas will be located. These large trucks would be able to continue to travel at highway speeds as they traverse the mainline "tolling zone". The detection of transponders at this tolling zone will be used as a vehicle tracking mechanism, not for toll payment calculation and assessment. Any non-ETC Heavy CV's would be directed to "exit" the dedicated truck lanes at the mainline toll plaza sites and would provide toll payment to toll collection staff through conventional toll lanes. These lanes would be equipped with a toll booth, manual toll terminals (presumably touchscreen units), a lane controller device, receipt printer, traffic control gate, axle-counting treadle, vehicle-counting look, VES equipment, etc. The toll plaza configuration would be 4 ETC express lanes and 3 attended conventional toll lanes in each direction. It has been assumed that the toll plaza would be constructed as a full 14 lane toll plaza with concrete barriers separating the ETC dedicated truck lane traffic (for each direction) from the non-ETC traffic for safety purposes.

Toll Transaction and Revenue Methodology. Preliminary traffic and revenue estimates were prepared for this tolling concept, again using VDOT average daily traffic (ADT) data extracted from I-81 improvement studies. Two-way ADT volumes, along with passenger and commercial vehicle percentages, were provided for each mainline segment including the locations of each mainline toll plaza for years 1996, 2005, 2010, 2015 and 2020. From this data, toll-free Light Commercial Vehi-

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

cle and Passenger Car volumes at each proposed mainline toll plaza location were estimated for the base year, 1996, and each of the future years.

A manual toll diversion analysis was then utilized to develop traffic volume estimates for each toll plaza location. The diversion analysis estimates the number of vehicles that would remain on the highway under tolled conditions. Since no origin/destination-specific data was available for use in this analysis, some typical trip origins and destinations were identified to estimate traffic diversion potential. Some of the origin/destination pairs included trips along the entire stretch of I-81 from the I-77 Interchange to the Washington, D.C. area, and from the southeastern states to I-64 corridor towns of Charlottesville and Richmond. Other short- and moderate-distance origin/destination pairs were also selected. For each movement in the corridor, the cost of making the trip on I-81 was compared with the cost of making the trip via an alternative existing highway route. The costs associated with trip making consist of three items: the distance traveled, the time it takes to make the trip, and any toll costs associated with the trip. All costs are expressed in dollars by applying a value of time and a cost per-mile to the travel time and distance, respectively. A percentage of trips are retained on I-81, based on a cost ratio that compares the cost of a trip using I-81 to the cost of a trip using the next best alternate route.

Toll Rates. Because of the exploratory and conceptual nature of this analysis, a computerized traffic modeling approach was not utilized. While several alternate toll rates were assessed, with a Passenger Car toll ranging from \$1.50 to \$3.50 per toll plaza (in 2000 dollars), it was not possible to determine if these rates represent the optimum toll. Light Commercial Vehicles would be levied proportionally higher rates. These Passenger Car tolls equate to per-mile charges for a full-length trip ranging from just under \$0.030 to \$0.065 per mile (in 2000 dollars). These rates are within a range of rates currently levied on existing toll roads operating in the United States. The assumed toll rates were then inflated by 3.0% per year to the respective year of operation.

While five alternative toll rates were assessed, preliminary revenue estimates were prepared for one toll schedule. This schedule assumed a toll of \$1.50 and \$3.00 (in 2000 dollars) is levied on Passenger Cars and Light Commercial Vehicles, respectively, at each of six mainline plazas in non-urban areas and along highway segments where the dedicated truck lanes have been completed.

Toll Revenue Estimates. Based on the above-referenced toll collection concept and tolls, STAR Solutions estimates that there would be 11,900,000 toll transactions on Light Commercial Vehicles and Passenger Cars with the commencement of tolling on the Phase 1 segment in 2009 at \$1.50/\$3.00 (in 2000 dollars). Toll transactions are projected to increase by 0.6% per year, on average, to 2019 with the completion of the dedicated lanes for Heavy Commercial Vehicles and the concurrent addition of the sixth and final mainline toll plaza. We have assumed that annual traffic growth continues after 2021 at the following average annual rates: 2021-2040, 2.0%; 2041-2050, 1.5%; and 2051-2060, 1.0%. In addition, for conceptual modeling purposes, the financial analysis assumes that toll rates will increase with inflation with no reduction in traffic. Inflation is assumed to be 3.0% per year from 2000 to 2018 and thereafter is assumed to be 2.5% per year. For example, the Passenger Car toll rate at the one mainline plaza that is operational in 2009 after the completion of Phase 1 is assumed to be \$1.96. The Light Commercial Vehicle toll rate at the Phase 1 mainline barrier in 2009 is assumed to be \$3.91.

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

STAR Solutions has forecast annual toll revenues, based on the assumed toll rates, toll collection concept and project phasing, and Light Commercial Vehicle and Passenger Car toll traffic and used these projections for purposes of estimating the additional funding capacity that could derive from this Alternative Tolling Concept. See "Pro Forma Forecast of Operations – Alternative Tolling Concept" below.

Toll Collection and Administrative Costs

Base Proposal

The project will benefit from the efficiencies represented by a state-of-the-art 100% electronic toll collection system on Heavy Commercial Vehicles by eliminating the need for lane attendants and cash handling. The toll collection costs for ETC system operation and maintenance include the labor and overhead affiliated with facility and staff management/administration, transaction and revenue auditing and reporting, accounting/finance, violations processing, control room supervision, field maintenance and customer service. For customer service the concept does include three service center supervisors to staff the satellite service centers that would provide local customer service in close proximity to the northern and southern mainline lanes. Costs also provide for a fleet of vehicles including field technician/equipment trucks, bucket trucks and other pool vehicles necessary to support management and operations. The assumptions used to develop the toll collection costs are summarized below.

Staffing. Our concept includes full-time staffing for toll facility management, operations, finance, 24 x 7 x 365 field maintenance and systems support. Management staffing covers executive, operations, accounting, and maintenance functional areas including shift and facility supervision. A field force of mobile technicians would be assigned to three-shift coverage every 50 miles. Field supervisors would staff a single supervisor shift every 80 miles. Specialty field engineers with expertise in the areas of software, communications and specific hardware components would be used to support the field technicians with management and administrative support.

Facilities. Non-field staffing would be based in administrative buildings located within close proximity to the mainline lanes at the northern and southern extents of I-81. These buildings would be used to support management, accounting/finance, facility operations, supervision and maintenance functions.

Because of the imposition of the Interim Toll in 2006, toll transactions are registered on the entire 325-mile I-81 corridor throughout the project implementation period as well as after completion of each of the four phases of the project.

STAR Solutions has estimated that the annual costs of toll collection for a 100% ETC system of this nature will be \$10.53 million, stated in 2002 dollars. In the pro forma analysis, the estimated annual collection costs are inflated by 3.0% per year from 2002 through 2018 and by 2.5% per year thereafter. Exhibit 3-8 includes these inflated projected annual toll collection costs in the pro forma financial analysis for our Base Proposal.

Alternative Tolling Concept

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

The toll collection costs for the Alternative Tolling Concept system operation and maintenance increase the base concept toll collection costs to cover the additional labor, fixed and variable expenses associated with cash collections in attended lanes and the increased service requirements anticipated for Passenger Cars and Light Commercial Vehicles. The addition of six mainline toll plazas to the base concept includes thirty-six attended lanes. To support cash collection and management in these lanes additional labor and overhead is required for money counters, lane attendants and increased supervision. Additional labor, overhead, fixed and variable expenses are required for facility maintenance, collections, customer service, technical support, armored truck pick-ups and counting machine service/maintenance. For customer service the alternative concept does include service center representatives at each mainline plaza. The assumptions used to develop the toll collection costs for the alternative concept are summarized below.

Staffing. The alternative concept includes the addition of a lane attendant workforce that provides 100% coverage on all manual lanes on day and evening shifts and 50% coverage on the night shift. Additional labor is required to provide shift supervision and money counting and plaza equipment maintenance.

Facilities. Plaza and management staffing would be based in administrative buildings co-located with the mainline plazas. In addition to management, accounting/finance, facility operations, supervision and maintenance functions, these buildings would support lane attendant personnel, and money handling/counting functions.

STAR Solutions has estimated that the annual costs of toll collection for the Alternative Tolling Concept, assuming all six barriers are in operation, would increase the cost of the base concept to \$24.08 million, stated in 2002 dollars.

Asset Management Costs

STAR Solutions' plan of finance assumes that Asset Management costs for all I-81 assets (except for pavement covered under the KPRI warranty and toll collection equipment and related facilities) will continue to be paid by VDOT out of its own budgetary resources. These VDOT outlays could be reimbursed by excess toll revenues from operations, after funding of all toll collection costs, Bond and TIFIA Loan repayments and reserves as needed to meet capital market and TIFIA requirements. As stated previously in the Operating Plan, VDOT's Asset Management costs will be reduced during the life of the project because of the proposed KPRI pavement warranty.



3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

PAGES 3-26, 3-27, 3-28 ARE CONFIDENTIAL AND
PROPRIETARY INFORMATION

Preliminary Flow of Funds

STAR Solutions anticipates that the following flow of funds will be utilized for the financing of the I-81 project, although the final structure is subject to change as the plan of finance is further refined.

- Recurring annual toll collection costs and administration costs.
- Toll Revenue Bond debt service.
- Replenishment of Toll Revenue Bond debt service reserves.



3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

- Debt service on the TIFIA Loan.
- Incentive payments to contractors for early completion.
- Deposit to other required reserves for the Bonds and TIFIA Loan.
- Deposit to VDOT Reimbursement Fund, out of which VDOT is reimbursed for Asset Management costs and potentially for capital contributions for the I-81 project.
- Deposit of all remaining revenues to Corridor Improvement Fund.

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

Pro Forma Forecast of Operations

Base Proposal

Based on the assumptions discussed above and summarized in Exhibit 3-6, STAR Solutions prepared a pro forma annual forecast of operations, Bond debt service, TIFIA Loan repayments and debt service coverage during 2004-2056 for our Base Proposal. (See Exhibit 3-8.) The total projected funding gap for all four phases of the project is \$1.869 billion, including a projected \$146 million funding gap in Phase 1, an additional projected \$229 million gap in Phase 2, an additional projected \$739 million gap in Phase 3 and an additional projected \$755 million gap in Phase 4.

These funding gaps potentially could be eliminated using one or more of the following additional resources: Additional VDOT capital contributions in the form of a commitment to contribute towards the I-81 improvements project funds that are anticipated to be in future Virginia Transportation Development Plans for I-81 related improvements. Absent a PPTA proposal to improve I-81, VDOT would have to continue to set aside funds for design and construction of needed improvements in the corridor, so it is reasonable to assume that such monies should be available to a PPTA operator that is assuming responsibility for these duties. These funds could conceivably be repaid from the proceeds of the Toll Revenue Bonds and TIFIA Loan tranches that are delivered to fund subsequent phases of the project. If sufficient financing capacity were not subsequently available, this "project advance" could potentially also be repaid from surplus toll revenues, after payment of debt service on the Toll Revenue Bonds and TIFIA Loan and funding of replacement costs of toll equipment.

- Additional federal funds, including higher than assumed earmarks for the separation of cars and trucks along the entire corridor, ITS program funding, homeland security appropriations for emergency preparedness/evacuation readiness, or other federal sources.
- Additional project revenue debt that would be issued if toll rates on heavy commercial vehicles were optimized to generate the maximum potential revenue.
- Locally generated revenues through tax-overlay districts, local recordation tax revenue, or other sources of funds provided by local governments in the corridor. Local participation in some of the public safety aspects of our ITS plan could also provide some funds to offset project costs.
- Fines or other penalties that may be levied through changes to Virginia law for toll or enforcement violations in the I-81 corridor.
- Slower construction of flyovers for heavy commercial vehicles at interchanges than is assumed in our Base Proposal.
- Additional project revenue debt that could be incurred if tolls were charged on all other vehicles, *i.e.*, Passenger Cars and Light Commercial Vehicles. Our recommendation would be that these other vehicles would be tolled at six toll barriers located in non-urban areas through the I-81

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

corridor, thereby charging long-distance I-81 users for a portion of the improvements that have increased the safety and reliability of travel on I-81 without penalizing local and commuter traffic. For example, the first toll plaza would be at approximately milepost 60, thus facilitating car traffic in the Bristol-Marion area on a toll-free basis. Based on a preliminary analysis of non-Heavy CV traffic along I-81, the toll rate on such vehicles would be substantially lower than that for Heavy Commercial Vehicles and would be comparable to current toll rates for Passenger Cars and Light Commercial Vehicles on existing long-distance eastern tollroads. Such additional toll revenue potentially could also be available to reduce the amount of the per mile Heavy CV toll. Current Virginia law would have to be changed to permit this tolling option. Tolling all vehicles would, of course, incur additional toll operating and maintenance costs and revisions to our Base Proposal to facilitate the construction of toll plazas.

Additional funds from these sources could not only fund the financing gaps in our proposal, but they would also be available to support some of the other transportation enhancements in the corridor that support the goals of increasing safety and reducing congestion in the I-81 corridor. It is also worth noting that, should our funding proposal be accepted, it is conceivable that by removing I-81 from the state's list of projects on which it would have to spend significant resources over the next 20-40 years, these funds could be released for other projects statewide.

Alternative Tolling Concept

The projection of funding capacity and forecast of operations and debt service coverage using the Alternative Tolling Concept are summarized in Exhibit 3-9 and Exhibit 3-11, respectively. Assumptions for these projections are summarized in Exhibit 3-10. Even using the assumed relatively low toll rate schedule at each barrier when the four phases are completed — the toll rate in 2009 at the toll barrier constructed in Phase 1 is assumed to be approximately \$2.00 for Passenger Cars and \$4.50 for Light Commercial Vehicles — substantial additional financing capacity is projected to be generated. As a result, the total projected funding gap for all four phases of the project is eliminated. In fact, each phase of the project is projected to be fully funded. As is shown in Exhibit 3-9, the projected fund balance at completion of Phase 1 at the end of 2008 is \$130 million, or nearly equal to the assumed \$169 million VDOT contribution during 2004-2008. The projected fund balance at completion of Phase 2 at the end of 2010 is \$1.06 billion. The projected fund balance increases to \$1.82 billion at the end of 2018 when all four phases are complete.

* * * * *

In summary, the following table summarizes the tolling concept for our Base Proposal and an Alternative Tolling Concept, as well as the projected fund balance at the end of each phase and the projected funding gaps for each phase, based on the preliminary cash flow analysis discussed above.

	Base Proposal	Alternative Tolling Concept
Vehicles Tolled	Heavy Commercial	Heavy Commercial Light Commercial
Years Tolls Begin on Heavy Commercial Vehicles		

3.c Proposed Assumptions

Include a list and discussion of assumptions (user fees or other revenue sources, and usage of the facility) underlying all major elements of the financial plan.

Interim Completed Phases	2006 2009, 2011, 2015, 2019	2006 2009, 2011, 2015, 2019
Barrier Toll Rate on Passenger Cars and Light Commercial Vehicles	None	Comparable to current rates on inter-city tollroads in the East
Years Tolls Begin on Light Commercial Vehicles and Passenger Cars		
Interim Completed Phases	None None	None 2009, 2011, 2015, 2019
Projected Fund Balance at End of Phase (\$ in millions)		
1 (2008)	\$(146)	\$130
2 (2010)	\$(375)	\$1,057
3 (2015)	\$(1,115)	\$1,610
4 (2018)	\$(1,869)	\$1,821
Projected Funding Surplus (Gap) for Each Phase (\$ in millions)		
1 (2008)	\$(146)	\$130
2 (2010)	\$(229)	\$927
3 (2015)	\$(740)	\$553
4 (2018)	\$(754)	\$211

STAR Solutions recognizes that many elements of the financing plan will need to be adjusted and refined as the project is developed in partnership with VDOT. The timing of both sources and uses of funds can be expected to be modified during the multi-year implementation period for the project. However, STAR Solutions is confident that, over the course of development of the I-81 Project, we and VDOT can jointly develop a financing plan that best meets all parties' objectives for the Project, including truck users, other vehicle users, VDOT, the FHWA, Virginia and Congressional legislative delegations, and other interested parties.

3.d Proposed Risks

Identify the proposed risk factors and methods for dealing with these factors. All risks, financial or otherwise, shall be clearly specified including risks for which VDOT is expected to guarantee or otherwise assume.

Given the projected 15-year schedule for the project, STAR Solutions recognizes that changed conditions outside the control of either STAR Solutions and VDOT impose real risks for the completion and successful operation of the project. We believe that our approach to the development of the project provides both STAR Solutions and VDOT with the flexibility to address issues and risks as they materialize over time. This flexibility is demonstrated in our approach to mitigating the risks we can currently identify.

Project Development. STAR Solutions has already expended considerable resources in devel-

3.d Proposed Risks

Identify the proposed risk factors and methods for dealing with these factors. All risks, financial or otherwise, shall be clearly specified including risks for which VDOT is expected to guarantee or otherwise assume.

oping this comprehensive proposal for short, medium and long-range improvements to the I-81 Corridor. A project of this magnitude involves significant development risk, which has been evidenced by STAR Solutions' team members and its consultants incurring an estimated \$4.5 million of "at-risk" costs and expenses from the onset of our efforts in early 2001 to the January 17, 2003 submission date of this proposal. Further, we recognize that future development and negotiation of a Comprehensive Agreement will involve significant additional time and resources, without any guarantee that the project will proceed as proposed. As tangible demonstration of our confidence that our proposal will ultimately be successful, STAR Solutions is prepared to continue to work with the State without any type of compensation from the State until successful execution of a Comprehensive Agreement as scheduled in September 2003.

Project Completion. Without the resources of the State supporting the toll revenue financing for this project, it is critical to a successful financing that sufficient guarantees are in place to complete each phase of the project on time and on budget.

Guaranteed Maximum Prices. STAR Solutions intends to provide guaranteed prices for each phase of the roadway. It is STAR Solutions anticipation that, absent a change in the scope of each phase, the guaranteed price will not change. STAR Solutions and its project team expects to absorb any cost overruns, but will also retain any savings that may occur. STAR Solutions anticipates that either VDOT or an independent third-party engineering firm will review the price in order to provide comfort to VDOT as to the guaranteed prices' reasonableness for the risk and the scope of work covered by that guaranteed price. This independent review will also provide assurance to the investment community that sufficient funds are available within the project financing to complete each respective phase of the project.

Our guaranteed prices will include allowances for such items as right-of-way acquisition costs, unidentified costs of utility relocations, unidentified or unquantifiable environmental mitigation needs, and archeological or cultural resource issues that could occur, all subject to negotiation of a Comprehensive Agreement. Once an allowance for each item is agreed to, STAR Solutions would propose that VDOT be responsible for any costs in excess of that allowance, and VDOT would be the sole beneficiary of any savings.

Guaranteed Completion Dates. STAR Solutions also anticipates that the completion date for each phase of the project will be guaranteed, subject to force majeure claims. To provide incentives to the various general contractors working on the project, STAR Solutions proposes to include incentives for early completion and liquidated damages for missing the guaranteed completion dates. Early completion incentives would be funded by a portion of the net revenues collected due to earlier than projected operation at the higher toll rate on the dedicated Heavy Commercial Vehicle lanes on the completed phase. Liquidated damages would be the obligation of the completion guarantor. We would expect that the specific events that could result in extensions of the Guaranteed Completion Date would be subject to negotiations within the context of the Comprehensive Agreement.

Completion Guarantor. STAR Solutions anticipates that, subject to requisite approvals, KBR, Inc., a Halliburton Company, will provide the necessary completion guarantees.

3.d Proposed Risks

Identify the proposed risk factors and methods for dealing with these factors. All risks, financial or otherwise, shall be clearly specified including risks for which VDOT is expected to guarantee or otherwise assume.

Project Insurance. STAR Solutions anticipates obtaining a project-controlled insurance policy ("PCIP"). This policy will help avoid disputes that can arise from claims on the project and that can delay project completion. Such claims often result in litigation and can prove costly to projects such as these in terms of both dollars and, more importantly, time.

Funding Sufficiency. The toll revenue debt is dependent on the project receiving pilot program designation from FHWA to allow tolls on interstate highways. STAR Solutions' preliminary plan of finance includes four separate series of tax-exempt debt issued over a number of years. In addition, a phased issuance of BANs/TIFIA Loan is timed to coincide with each series of Bonds. Given the number of years that are projected to elapse between the first and last tranches of debt, there is some risk that the needed capital can be raised at the assumed rates. To insulate VDOT and lenders from this risk, we are planning on sizing each series of Bonds and each tranche of the BANs/TIFIA Loan so that net toll revenues from the Interim Toll and from the Completed Toll on any phases that are to be completed with each respective series of Bonds and BANs can service all of the Bonds and TIFIA Loan that would be outstanding when each phase's costs are fully financed. This gives VDOT and STAR Solutions the flexibility to delay or even stop additional phases of the project if financing costs become prohibitive, and still service all outstanding debt.

In a similar manner, STAR Solutions recognizes that receiving all of the federal earmark funds identified in its preliminary plan of finance may take more than one federal transportation authorization bill.

We expect to continue to work with VDOT, the Commonwealth, the Commonwealth's Congressional delegation and Congressional leadership to receive the required federal earmarks.

Toll Collection System. STAR Solutions proposes to be responsible for the design, installation, testing and on-going operation of the I-81 all electronic toll collection system for heavy commercial vehicles and, in the Alternative Tolling Concept, the ETC and cash collection system at barrier plazas. STAR Solutions proposes to partner with VDOT to ensure that the I-81 ETC system is initially and remains compatible with other ETC systems over which VDOT has responsibility.

Competitive Facilities. STAR Solutions recognizes that VDOT is responsible to make improvements to public transportation assets to promote the economy and public safety. Although most such improvements are not likely to be seen as having a material adverse impact on the toll revenue capability of the project, certain types of improvements could be considered materially competitive with the I-81 project. Therefore, STAR Solutions proposes to negotiate with VDOT a competition covenant that would protect the project's ability to generate toll revenues by considering the effect on the project's financial viability if VDOT were to construct or finance major competitive transportation improvements that could materially affect Heavy Commercial Vehicle

3.d Proposed Risks

Identify the proposed risk factors and methods for dealing with these factors. All risks, financial or otherwise, shall be clearly specified including risks for which VDOT is expected to guarantee or otherwise assume.

traffic on I-81. Such a covenant would not impede improvements needed to maintain safe highway traveling conditions on other non-competing transportation facilities within the defined corridor. Further, improvements to freight rail lines potentially could be advanced in tandem with our I-81 project, subject to thorough evaluation of the effect of such improvements on I-81 Heavy CV traffic.

Sufficiency of Net Revenues.

CONFIDENTIAL AND PROPRIETARY INFORMATION

The 100% ETC system and VDOT's funding of Asset Management costs will mitigate lenders' risks that operating and maintenance costs reduce net revenues available for debt service. STAR Solutions anticipates that other operating risks will be mitigated through structural features in the toll revenue financing, including use of independent feasibility reports and inclusion in the financing documents of covenants regarding STAR Solutions' authority to establish toll rates, limitations on additional indebtedness and other terms that are reasonable and customary in toll revenue financings.

3.e Local, State and Federal Resources

Identify any local, state or federal resources that the proposer contemplates requesting for the project. Describe the total commitment (financial, services, property, etc.), if any, expected from governmental sources and the timing of any anticipated commitment.

Following is a summary of the principal local, state and federal resources contemplated in STAR Solutions' proposal.

VDOT Review. STAR Solutions believes that it is important to the feasibility and acceptability of the project to have active VDOT participation in the review of plans, testing results and the monitoring of construction throughout the life of the project.

USDOT Pilot Program to Toll Interstates. Receiving designation from the Federal Highway Administration as a pilot project that authorizes charging tolls on an existing Interstate highway is essential to obtain the forecast amount of resources from both Toll Revenue Bonds and the TI-FIA Loan. The preliminary financial plan in our proposal meets the statutory requirement that toll revenues be used only for debt service, reasonable rates of return on investments, and costs necessary for the improvement and proper operation of maintenance of I-81. Use of excess toll revenues to reimburse VDOT for expenses that VDOT incurs for Asset Management of I-81 and capital contributions to the project is consistent with this statutory requirement. Considering both the merits of this project and the fact that no other projects are currently under review for this designation, we are confident that FHWA will award I-81 pilot project designation. STAR Solutions is prepared to begin working immediately with VDOT to amend, if necessary, its 2002 ap-

3.e Local, State and Federal Resources

Identify any local, state or federal resources that the proposer contemplates requesting for the project. Describe the total commitment (financial, services, property, etc.), if any, expected from governmental sources and the timing of any anticipated commitment.

plication to the U.S. Secretary of Transportation.

Federal Earmarked Funds. STAR Solutions proposes to partner with VDOT, FHWA, the Virginia Congressional delegation and Congressional leadership to secure on-going earmarks for the I-81 project in future federal reauthorizations of TEA-21. We believe that a project of this scope and magnitude will be recognized by Congress in providing significant economic benefits to the Commonwealth and the nation as well as improved safety and reliability to all users of I-81.

VDOT Responsibility for Asset Management Costs and Repair, Rehabilitation and Reconstruction Costs Not Funded by the R&R Reserve. STAR Solutions proposes that VDOT continue to be responsible for all costs of maintenance, repair and reconstruction of I-81 exclusive of costs covered by the proposed Koch pavement warranty. The credit quality of the Toll Revenue Bonds and the TIFIA Loan, as proposed, will depend on VDOT's continued acceptance of this responsibility. The pro forma analysis included in our Base Proposal reflects the availability, after the completion of the project in 2018, of excess toll revenues (after funding toll collection costs, Bond debt service, TIFIA Loan repayments and any reserves as needed to satisfy market requirements) to reimburse VDOT for such costs.

VDOT Capital Funding. STAR Solutions has identified \$169 million of allocated funding for I-81 projects in the current Virginia Transportation Development Plan, which exclude \$27 million of funds that have been expended as of December 2, 2002. For modeling purposes we have assumed that this funding will be available in the first five years of the project, in 2004-2008, in annual amounts as needed to provide minimum cash balances.

STAR Solutions would agree to undertake financing of all or a portion of the VDOT funding, if toll financing capacity were available at that future point in time. In addition, it is possible that VDOT's contributions could be repaid from excess toll revenues, subject to the terms and conditions included in the bond resolution for the Toll Revenue Bonds and TIFIA Loan.

Local Government Contributions. No local financial resources are built into our plan of finance under either tolling concept, although STAR Solutions does anticipate the opportunity to work with local governments to identify potential resources such as tax increments, recordation taxes and right-of-way donations that could contribute to funding of the project. In addition, STAR Solutions is prepared to consult with the MPO's for Bristol, Blacksburg/Christiansburg, Harrisonburg/Staunton, Winchester and Roanoke on the placement and amount of tolls relating to the Project, as required by the USDOT Pilot Program to Toll Interstates. Any local contributions towards project costs would reduce the allocation of other governmental resources to the project.

Additional Governmental Contributions. As discussed in Tab 3.c, the preliminary financing plan for STAR Solutions' Base Proposal estimates that funding gaps occur in various years during the 15-year implementation period. All or a portion of such funding gaps could be satisfied with additional governmental contributions, additional financing that can be accomplished if an Alternative Tolling Concept is utilized, modifications to the project, or a combination of resources. STAR Solutions is confident that, over the course of development of the I-81 project, we and VDOT, as partners, can jointly develop a financing plan that best meets all parties' objectives for the Project, including truck users, other vehicle users, VDOT, the FHWA, Congressional leader-



3.e Local, State and Federal Resources

Identify any local, state or federal resources that the proposer contemplates requesting for the project. Describe the total commitment (financial, services, property, etc.), if any, expected from governmental sources and the timing of any anticipated commitment.

ship, Virginia and Congressional legislative delegations, and other interested parties.



List of Exhibits to Tab 3

EXHIBIT 3-1: Financing Support Letters From STAR Solutions' Banking Team

Base Proposal Exhibits

EXHIBIT 3-2: Sources and Uses of Funds During Project Construction, 2004-2018

EXHIBIT 3-3: Uses of Proceeds and Net Debt Service on Toll Revenue Bonds Issued in 2005, 2009, 2011 and 2015

EXHIBIT 3-4: Uses of Proceeds of Bond Anticipation Notes Issued in 2005, 2009, 2011 and 2015

EXHIBIT 3-5: TIFIA Loan Drawdowns and Repayments

EXHIBIT 3-6: Assumptions for the Plan of Finance and Forecast of Operations

EXHIBIT 3-7: Preliminary Forecast of Toll Revenues, 2006-2054

EXHIBIT 3-8: Forecast of Operations and Debt Service Coverage, 2006-2054

Alternative Tolling Concept Exhibits

EXHIBIT 3-9: Sources and Uses of Funds During Project Construction, 2004-2018

EXHIBIT 3-10: Assumptions for the Plan of Finance and Forecast of Operations

EXHIBIT 3-11: Forecast of Operations and Debt Service Coverage, 2006-2054

EXHIBITS 3-2 THROUGH 3-11 INCLUSIVE ARE
CONFIDENTIAL AND PROPRIETARY INFORMATION